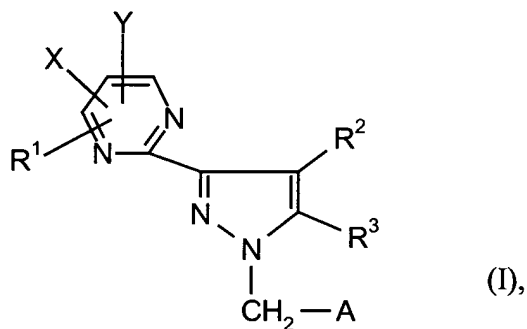


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A compound of the formula (I)



in which

at least one of the substituents R^1 , X and Y represents saturated or partially unsaturated C_3 - C_8 -cycloalkyl,

which may optionally be mono- or polysubstituted by amino, azido, formyl, mercaptyl, carboxyl, hydroxyl, morpholino, piperidino, pyrrolidino, sulphonamino, straight-chain, cyclic or branched acyl, acylamino, alkoxy, benzyloxy, alkylamino, dialkylamino, alkylsulphonyl, alkylsulphonamino, alkylthio, alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, cyano, halogen, phenyl

and/or is optionally substituted by

straight-chain or branched or cyclic alkyl having up to 6 carbon atoms which for its part may be substituted by amino, mercaptyl, carboxyl, hydroxyl, morpholino, piperidino, pyrrolidino, straight-chain, cyclic or branched acyl, acylamino, alkoxy, alkylamino,

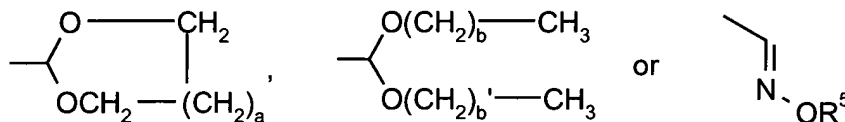
dialkylamino, alkylsulphonyl, alkylthio, phenyl, alkylsulphonamino, alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, cyano, halogen,

and where the optionally remaining radicals R^1 , X and/or Y are identical or different and each represents hydrogen, azido, formyl, mercaptyl, carboxyl, hydroxyl, straight-chain or branched acyl, alkoxy, alkylthio or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, cyano, halogen, phenyl or straight-chain or branched alkenyl or alkynyl having in each case up to 6 carbon atoms or alkyl having up to 20 carbon atoms, where both alkenyl, alkynyl and/or alkyl may optionally be substituted by hydroxyl, amino, azido, carboxyl, straight-chain or branched acyl, alkoxy, alkoxycarbonyl or acylamino having in each case up to 5 carbon atoms, aryl having 6 to 10 carbon atoms, halogen, cyano, dialkylamino having up to 6 carbon atoms, alkylamino having up to 6 carbon atoms and/or cycloalkyl having 3 to 8 carbon atoms or by a radical of the formula $-OR^4$,

in which

R^4 represents straight-chain or branched acyl having up to 5 carbon atoms,

and/or the optionally remaining radicals R^1 , X and/or Y each represents a radical of the formula



in which

a, b and b' are identical or different and represent a number 0, 1, 2 or 3,

R⁵ represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

and/or the optionally remaining radicals R¹, X and/or Y each represent a 1,3-oxazolidin-2-on-3-yl group which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl, amino, halogen, carboxyl, straight-chain or branched acyl, alkoxy, alkoxycarbonyl or acylamino having in each case up to 5 carbon atoms,

and/or the optionally remaining radicals R¹, X and/or Y each represent straight-chain or branched acyl having up to 6 carbon atoms which is optionally substituted by halogen,

or

represent straight-chain or branched acyloxy having up to 6 carbon atoms,

or

represent arylthio having 6 to 10 carbon atoms,

and/or the optionally remaining radicals R¹, X and/or Y represent radicals of the formulae -SO₃H or S(O)₂R⁶,

in which

c represents a number 1 or 2,

R⁶ represents straight-chain or branched alkyl having 1 to 10 carbon atoms, cycloalkyl having 3 to 8 carbon atoms, or aryl having 6 to 10 carbon atoms where the ring systems may optionally be substituted by halogen or by straight-chain or branched alkyl or alkoxy having in each case up to 4 carbon atoms,

and/or the optionally remaining radicals R^1 , X and/or Y each represent a radical of the formula $PO(OR^7)(OR^8)$,

in which

R^7 and R^8 are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 8 carbon atoms or cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms or benzyl,

and/or the optionally remaining radicals R^1 , X and/or Y each represent oxycycloalkyl having 3 to 8 carbon atoms or represent radicals of the formulae $-NH-C(=NH)NH_2$, $CON=C(NH_2)_2$ or $-C=NH(NH_2)$, $(CO)_dNR^9R^{10}$ or $-NHCONR^9R^{10}$,

in which

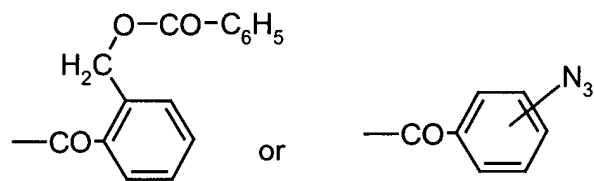
d represents a number 0 or 1,

R^9 and R^{10} are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 14 carbon atoms or cycloalkyl having 3 to 14 carbon atoms, or aryl having 6 to 10 carbon atoms, where the abovementioned radicals may optionally be substituted by aryl having 6 to 10 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, hydroxyl, amino or straight-chain or branched alkoxy, acyl or alkoxycarbonyl having in each case up to 6 carbon atoms,

and in the case that $d = 0$,

R^9 and R^{10} may also represent straight-chain, branched or cyclic acyl having up to 14 carbon atoms, straight-chain or branched hydroxyalkyl having up to 6 carbon atoms,

straight-chain or branched alkoxyalkyl having a total of up to 12 carbon atoms, straight-chain or branched alkoxycarbonyl or acyloxyalkyl having in each case up to 6 carbon atoms or a radical of the formula $-\text{SO}_2\text{R}^{11}$ or radicals of the formulae

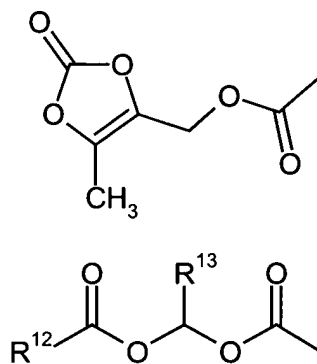


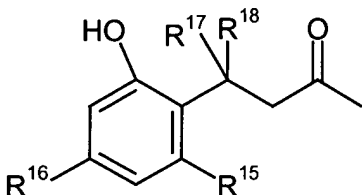
in which

R^{11} represents straight-chain or branched alkyl having up to 4 carbon atoms,

and/or

R^9 and R^{10} represent radicals of the formulae





R¹⁴ represents straight-chain or branched alkyl having up to 6 carbon atoms or cycloalkyl having 3 to 8 carbon atoms,

$R^{9'}$ and $R^{10'}$ are identical or different and each represents hydrogen; alkyl having up to 14 carbon atoms which is optionally substituted by hydroxyl or alkoxy having up to 8 carbon atoms; aryl having 6 to 10 carbon atoms which is optionally substituted by halogen,

R^2 and R^3 form, together with the double bond, a fused phenyl ring or a fused 6-membered aromatic heterocycle having up to 2 N atoms as the heteroatom(s),

which is optionally substituted up to 3 times by identical or different substituents from the group consisting of formyl, carboxyl, hydroxyl, mercaptyl, straight-chain or branched acyl, alkylthio or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, cyano, halogen or straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms which for its part may be substituted by hydroxyl, amino, carboxyl, straight-chain or branched acyl, alkoxy or alkoxycarbonyl having in each case up to 5 carbon atoms,

and/or the fused phenyl ring or the fused 6-membered aromatic heterocycle is optionally substituted by a group of the formula $-NR^{29}R^{30}$,

in which

R^{29} and R^{30} are identical or different and each represents hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

or

R^{29} represents hydrogen and

R^{30} represents acyl having up to four carbon atoms

and/or the fused phenyl ring or fused 6-membered aromatic heterocycle are optionally substituted by phenyl which for its part may be substituted up to 2 times by identical or different substituents from the group consisting of halogen, straight-chain or branched alkyl and alkoxy having in each case up to 6 carbon atoms

and/or the fused phenyl ring or the fused 6-membered aromatic heterocycle are optionally substituted by a group of the formula $-N=CH-NR^{31}R^{32}$,

in which

R^{31} and R^{32} are identical or different and each represents hydrogen, phenyl or straight-chain or branched alkyl having up to 6 carbon atoms,

A represents phenyl or pyrimidyl group,

which is optionally substituted up to 3 times by identical or different substituents from the group consisting of amino, mercaptyl, hydroxyl, formyl, carboxyl, straight-chain or branched acyl, alkylthio, alkyloxyacyl, alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, cyano, trifluoromethyl, azido, halogen, phenyl and straight-chain or branched alkyl having up to 6 carbon atoms which for its part may be substituted by hydroxyl, carboxyl, straight-chain or branched acyl, alkoxy or alkoxycarbonyl having in each case up to 5 carbon atoms,

and/or

is substituted by a group of the formula $-(CO)_f-NR^{33}R^{34}$,

in which

f represents a number 0 or 1,

R^{33} and R^{34} are identical or different and represent hydrogen, phenyl, benzyl or straight-chain or branched alkyl or acyl having in each case up to 5 carbon atoms,

or a pharmaceutically acceptable isomeric form or salt thereof.

2. (Previously presented) The compound according to Claim 1,

in which

at least one of the substituents R^1 , X and Y represents cyclopropyl, cyclobutyl, cyclopentenyl, cyclohexyl or cycloheptyl which may optionally be mono- or polysubstituted by amino, azido, formyl, mercaptyl, carboxyl, hydroxyl, morpholino, piperidino, pyrrolidino, sulphonamino, straight-chain, cyclic or branched acyl, acylamino, alkoxy, benzyloxy, alkylamino, dialkylamino, alkylsulphonyl, alkylsulphonamino, alkylthio, alkoxycarbonyl having in each case up to 4 carbon atoms, nitro, cyano, halogen, phenyl

and/or is optionally substituted by

straight-chain or branched or cyclic alkyl having up to 4 carbon atoms which for its part may be substituted by amino, mercaptyl, carboxyl, hydroxyl, morpholino, piperidino, pyrrolidino, straight-chain, cyclic or branched acyl, acylamino, alkoxy, alkylamino, dialkylamino, alkylsulphonyl, alkylthio, phenyl, alkylsulphonamino, alkoxycarbonyl having in each case up to 4 carbon atoms, nitro, cyano, halogen,

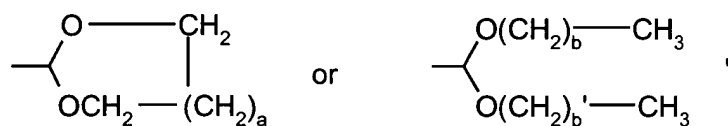
and where the optionally remaining radicals R^1 , X and/or Y are identical or different and each represents hydrogen, azido, formyl, mercaptyl, carboxyl, hydroxyl, straight-chain or branched acyl, alkoxy, alkylthio or alkoxycarbonyl having in each case up to 4 carbon atoms, nitro, cyano, halogen, phenyl or straight-chain or branched alkenyl or alkynyl having in each case up to 4 carbon atoms or alkyl having up to 18 carbon atoms, where

both alkenyl, alkynyl and/or alkyl may optionally be substituted by hydroxyl, amino, azido, carboxyl, straight-chain or branched acyl, alkoxy, alkoxycarbonyl or acylamino having in each case up to 4 carbon atoms, phenyl, naphthyl or pyridyl, halogen, cyano, dialkylamino having up to 6 carbon atoms, alkylamino having up to 4 carbon atoms and/or cyclopropyl, cyclopentyl, cyclohexyl or by a radical of the formula $-OR^4$,

in which

R^4 represents straight-chain or branched acyl having up to 4 carbon atoms,

and/or the optionally remaining radicals R^1 , X and/or Y each represent a radical of the formula



in which

a, b and b' are identical or different and represent a number 0, 1 or 2,

and/or the optionally remaining radicals R^1 , X and/or Y each represent a 1,3-oxazolidin-2-on-3-yl group which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of straight-chain or branched alkyl having up to 4 carbon atoms which is optionally substituted by hydroxyl, amino, halogen, carboxyl, straight-chain or branched acyl, alkoxy, alkoxycarbonyl or acylamino having in each case up to 4 carbon atoms,

and/or the optionally remaining radicals R^1 , X and/or Y each represent straight-chain or branched acyl having up to 4 carbon atoms which is optionally substituted by halogen,

or

represent straight-chain or branched acyloxy having up to 4 carbon atoms,

or

represents phenylthio,

and/or

represent radicals of the formulae $-SO_3H$ or $S(O)_cR^6$,

in which

c represents a number 1 or 2,

R^6 represents straight-chain or branched alkyl having 1 to 8 carbon atoms, or phenyl, where the ring systems may optionally be substituted by halogen or by straight-chain or branched alkyl or alkoxy having in each case up to 3 carbon atoms,

and/or the optionally remaining radicals R^1 , X and/or Y each represent a radical of the formula $PO(OR^7)(OR^8)$,

in which

R^7 and R^8 are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 4 carbon atoms or cyclopropyl, cyclopentyl, phenyl or benzyl,

and/or the optionally remaining radicals R^1 , X and/or Y each represent oxycycloalkyl having 3 to 6 carbon atoms or represent radicals of the formulae $-NH-C(=NH)NH_2$, $-CON=C(NH_2)_2$ or $-C=NH(NH_2)$, $(CO)_dNR^9R^{10}$ or $-NHCONR^9R^{10}$,

in which

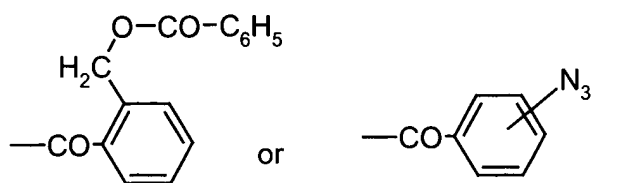
d represents a number 0 or 1,

R^9 and R^{10} are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 4 carbon atoms or cyclopropyl, cyclopentyl, cyclohexyl, or phenyl,

where the abovementioned radicals may optionally be substituted by phenyl, cyclopropyl, cyclopentyl, hydroxyl, amino or straight-chain or branched alkoxy, acyl or alkoxycarbonyl having in each case up to 4 carbon atoms,

and in the case that $d = 0$,

R^9 and R^{10} may also represent straight-chain, branched or cyclic acyl having up to 6 carbon atoms, straight-chain or branched hydroxyalkyl having up to 4 carbon atoms, straight-chain or branched alkoxyalkyl having a total of up to 10 carbon atoms, straight-chain or branched alkoxycarbonyl or acyloxyalkyl having in each case up to 4 carbon atoms or a radical of the formula $-SO_2R^{11}$ or a radical of the formulae

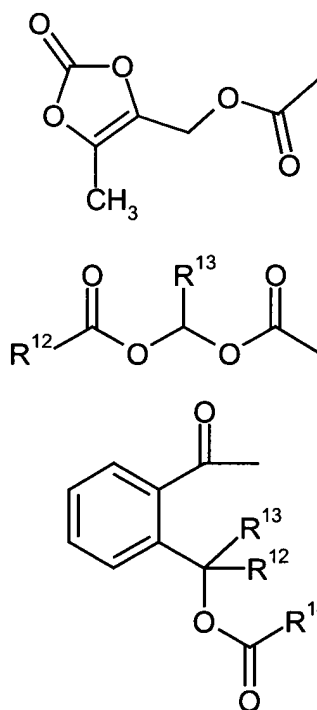


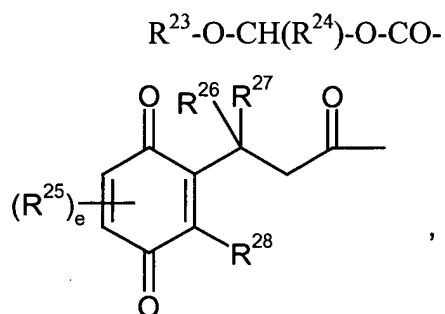
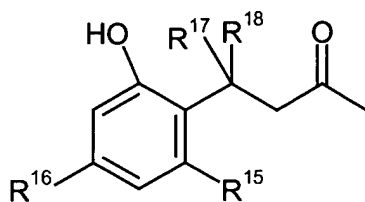
in which

R^{11} represents straight-chain or branched alkyl having up to 3 carbon atoms,

and/or

R^9 and R^{10} represent radicals of the formulae





in which

R^{12} , R^{13} and R^{15} to R^{18} and R^{23} to R^{28} are identical or different and each represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

e represents a number 0, 1 or 2,

and

R^{14} represents straight-chain or branched alkyl having up to 6 carbon atoms or cycloalkyl having 3 to 8 carbon atoms,

$R^{9'}$ and $R^{10'}$ are identical or different and each represents hydrogen; alkyl having up to 4 carbon atoms which is optionally substituted by hydroxyl or alkoxy having up to 7 carbon atoms, phenyl which is optionally substituted by halogen,

R^2 and R^3 , together with the double bond, form a fused phenyl, pyridyl, pyrimidinyl, pyrazinyl or pyridazinyl ring,

which are optionally substituted up to 2 times by identical or different substituents from the group consisting of formyl, carboxyl, hydroxyl, mercaptyl, straight-chain or branched acyl, alkylthio or alkoxycarbonyl having in each case up to 5 carbon atoms, nitro, cyano, azido, fluorine, chlorine, bromine or straight-chain or branched alkyl or alkoxy having in each case up to 5 carbon atoms which for its part may be substituted by hydroxyl, amino, carboxyl, straight-chain or branched acyl, alkoxy or alkoxycarbonyl having in each case up to 4 carbon atoms,

and/or

the abovementioned heterocyclic rings or phenyl are optionally substituted by a group of the formula $-NR^{29}R^{30}$,

in which

R^{29} and R^{30} are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms

or

R^{29} represents hydrogen

and

R^{30} represents formyl

and/or the abovementioned fused phenyl, pyridyl, pyrimidinyl, pyrazinyl or pyridazinyl rings are optionally substituted by phenyl which for its part may be substituted by fluorine, chlorine, bromine or by straight-chain or branched alkyl or alkoxy having in each case up to 4 carbon atoms,

A represents phenyl or pyrimidyl group which is optionally substituted up to 2 times by identical or different substituents from the group consisting of hydroxyl, formyl, carboxyl, straight-chain or branched acyl, alkylthio, alkyloxyacyl, alkoxy or alkoxycarbonyl having in each case up to 4 carbon atoms, fluorine, chlorine or bromine,

or a pharmaceutically acceptable isomeric form or salt thereof.

3. (Previously presented) The compound according to Claim 1,

in which

at least one of the substituents R^1 , X and Y represents cyclopropyl which is optionally substituted by hydroxyl or fluoromethyl, or represents cyclobutyl, cyclopentenyl, cyclopentyl or cyclohexyl,

and where the optionally remaining radicals R^1 , X and/or Y are identical or different and each represents hydrogen, hydroxyl, halogen or azido,

and/or

represent a 1,3-oxazolidin-2-on-3-yl group which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of straight-chain or branched alkyl having up to 4 carbon atoms which is optionally substituted by hydroxyl,

amino, halogen, carboxyl, straight-chain or branched acyl, alkoxy, alkoxycarbonyl or acylamino having in each case up to 4 carbon atoms,

and/or

represent straight-chain or branched acyl having up to 4 carbon atoms which is optionally substituted by halogen,

or

represent straight-chain or branched acyloxy having up to 4 carbon atoms,

and/or

represent radicals of the formulae $\text{-SO}_3\text{H}$ or $\text{S(O)}_c\text{R}^6$,
in which

c represents a number 1 or 2,

R^6 represents straight-chain or branched alkyl having 1 to 8 carbon atoms, or phenyl, where the ring systems may optionally be substituted by halogen or by straight-chain or branched alkyl or alkoxy having in each case up to 3 carbon atoms,

and/or

represent a radical of the formula $\text{PO(OR}^7\text{)(OR}^8\text{)}$,

in which

R^7 and R^8 are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 4 carbon atoms or cyclopropyl, cyclopentyl, phenyl or benzyl,

and/or

represent oxycycloalkyl having 3 to 6 carbon atoms or represent radicals of the formulae -
 $CON=C(NH_2)_2$ or $-C=NH(NH_2)$ or $(CO)_dNR^9R^{10}$ or $NHCONR^{12}R^{13}$,

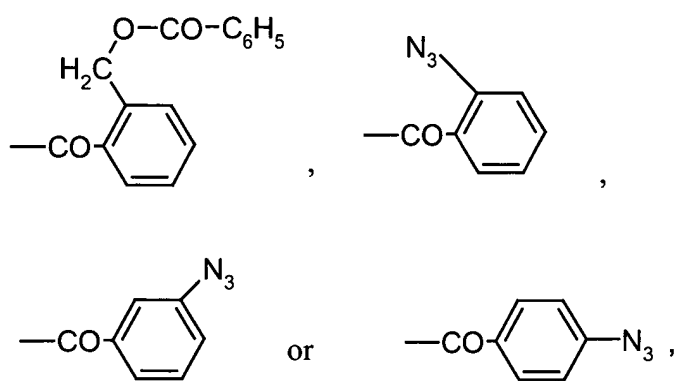
in which

d represents a number 0 or 1,

R^9 and R^{10} are identical or different and each represents hydrogen, straight-chain or branched alkyl having up to 4 carbon atoms or cyclopropyl, cyclopentyl, cyclohexyl or phenyl,

and in the case where $d = 0$

R^9 and R^{10} also represent straight-chain, branched or cyclic acyl having up to 5 carbon atoms, straight-chain or branched hydroxyalkyl having up to 3 carbon atoms, straight-chain or branched alkoxyalkyl having a total of up to 8 carbon atoms, straight-chain or branched alkoxy carbonyl or acyloxyalkyl having in each case up to 3 carbon atoms or a radical of the formula $-SO_2R^{11}$ or a radical of the formulae

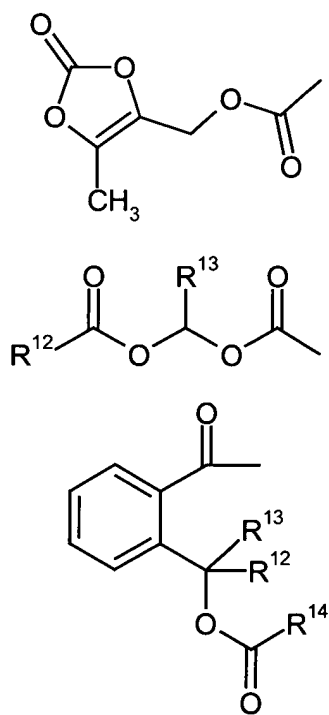


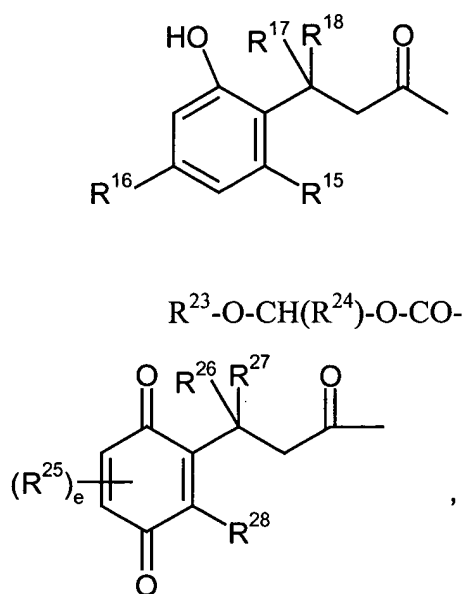
in which

R^{11} represents straight-chain or branched alkyl having up to 4 carbon atoms

and/or

R^9 and R^{10} represent radicals of the formulae





in which

R^{12} , R^{13} and R^{15} to R^{18} and R^{23} to R^{28} are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

e represents a number 0, 1 or 2

and

R^{14} represents straight-chain or branched alkyl having up to 6 carbon atoms or cycloalkyl having 3 to 8 carbon atoms,

$R^{9'}$ and $R^{10'}$ are identical or different and represent hydrogen; alkyl having up to 4 carbon atoms which is optionally substituted by hydroxyl or alkoxy having up to 7 carbon atoms, phenyl which is optionally substituted by halogen,

R^2 and R^3 form, together with the double bond, a phenyl, pyridyl or pyrimidinyl ring,

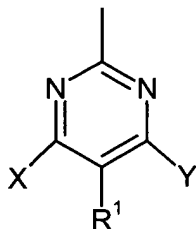
A represents phenyl or pyrimidyl group, each of which is optionally substituted by fluorine, chlorine or bromine,

or a pharmaceutically acceptable isomeric form or salt thereof.

4. (Previously presented) The compound according to claim 1,

in which

R¹, X and Y are attached to the pyrimidine ring as follows



and

R¹ represents an optionally substituted cyclopropyl, cyclobutyl, cyclopentenyl, cyclopentyl, cyclohexyl, 1-hydroxycyclopropyl or 1-(fluoromethyl)cyclopropyl radical,

X represents NH₂

and

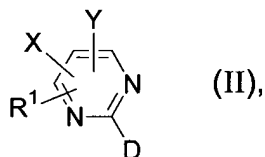
Y represents hydrogen or NH₂.

5. (Previously presented) The compound according to claim 4, in which R^1 represents an optionally substituted cyclopropyl radical.
6. (Previously presented) A process for preparing the compounds of the general formula (I) according to Claim 1,

characterized in that

depending on the various meanings of the heterocycles listed above are under R^2 and R^3 ,

compounds of the general formula (II)

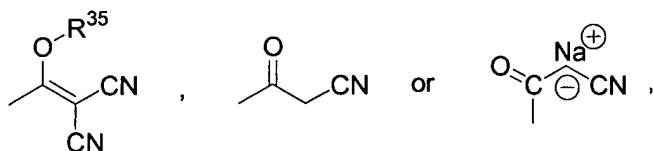


in which

R^1 , X and Y are each as defined above in Claim 1,

and

D represents radicals of the formulae



in which

R^{35} represents C_1 - C_4 -alkyl

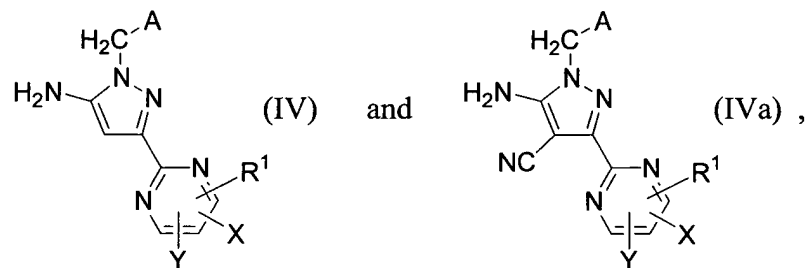
are converted, by reaction with compounds of the general formula (III)



in which

A is as defined above in Claim 1,

in inert solvents into the compounds of the general formula (IV) or (IVa)



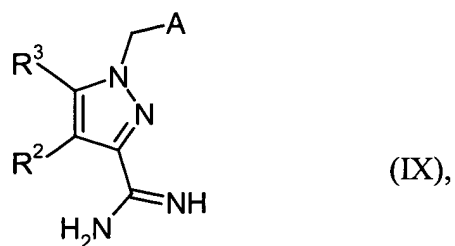
in which

A, X, Y and R^1 are each as defined above in Claim 1,

and, in the case of the compounds of the general formula (IVa), are subsequently cyclized with carboxylic acids, nitriles, formamides or guanidium salts,

and in the case of the compounds of the general formula (IV), are cyclized with 1,3-dicarbonyl derivatives, their salts, tautomers, enol ethers or enamines in the presence of acids.

7. (Withdrawn) Amidines of the general formula (IX)



in which

R^2 , R^3 and A are each as defined in one of the preceding Claims 1 to 3,

and their isomeric forms and salts.

8. (Currently amended) A pharmaceutical composition comprising at least one compound of the ~~general~~ formula (I) according to Claim 1 and a pharmaceutically acceptable carrier.
9. (Cancelled)
10. (Withdrawn, currently amended) A pharmaceutical composition comprising at least one compound of the ~~general~~ formula (I) according to Claim 1 in combination with at least one organic nitrate or NO donor.
11. (Withdrawn, currently amended) A pharmaceutical composition comprising at least one compound of the ~~general~~ formula (I) according to Claim 1 in combination with at least one compound which inhibits the degradation of cyclic guanosine monophosphate (cGMP).
12. (Cancelled)

13. (Previously presented) A method of treating the cardiovascular disease hypertension, comprising administering to a hypertensive mammal an effective amount of a compound according to Claim 1.
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Withdrawn, currently amended) The method of claim 13, ~~14, 15, 16 or 17~~[[,]] wherein said compound of the ~~general~~ formula (I) according to Claim 1 is administered in combination with an organic nitrate or NO donor.
19. (Withdrawn) The process of claim 6, wherein said compound of general formula (IV) further is cyclized with 1,3-dicarbonyl derivatives, their salts, tautomers, enol ethers or enamines in the presence of acids under microwave irradiation.
20. (Cancelled)
21. (Withdrawn, currently amended) The method of claim 13, ~~14, 15, 16 or 17~~[[,]] wherein said compound of the ~~general~~ formula (I) according to Claim 1 is administered in combination with a compound that inhibits the degradation of cyclic guanosine monophosphate (cGMP).